

CLAIMS:

1. A method of controlling a copy window during read-out of a magneto-optical recording medium (10) comprising a storage layer and a read-out layer, wherein an expanded domain leading to a reading pulse is generated in said read-out layer by copying a mark region from said storage layer to said read-out layer upon heating by a radiation power and
5 with the help of an external magnetic field, said method comprising the steps of:
deriving a switching time of said external magnetic field from said reading pulse;
determining a shift in the timing of said reading pulse; and
controlling the size of said copy window based on said determined timing shift.
- 10 2. A method according to claim 1, wherein said timing shift is determined based on a difference between a time delay (d) measured between said switching time and said reading pulse and a detected space run length related to said time delay.
3. A method according to claim 2, wherein said copy window size is reduced by
15 a predetermined amount if said difference is smaller than zero, and said copy window size is increased by a predetermined amount if said difference is larger than zero.
4. A method according to claim 1 or 2, wherein said timing shift is obtained by an averaging operation.
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5. A method according to claim 1 or 2, wherein said copy window size is controlled by changing the radiation power and/or said external magnetic field, used for said read-out.
- 25 6. A method according to claim 5, wherein said external magnetic field is changed by changing a coil current supplied to a magnetic head (12).

7. A method according to claim 5, wherein said change of said laser power is used for a coarse control function, and said change of said external magnetic field is used for a fine control function, or vice versa.

5 8. A method according to claim 3, wherein said predetermined amounts are obtained from a look-up table or a functional relationship.

9. A method according to claim 8, wherein said look-up table or said functional relationship define a relation between said copy window size and said radiation power and/or
10 said external magnetic field.

10. A method according to claim 9, wherein said radiation power is controlled based on the reading velocity.

15 11. A method according to claim 10, wherein said look-up table defines a relation between a radius of said recording medium (10) and said radiation power.

12. A method according to claim 10, wherein said look-up table defines an interpolation between an inner and outer radius of said recording medium.

20 13. A method according to claim 1 or 2, wherein a run length violation is determined when said copy window size is larger than a first threshold value or smaller than a second threshold value.

25 14. A method according to claim 13, wherein said threshold violations are detected by calculating a running digital sum of signals from a DC free modulation code.

15. A method according to claim 13 or 14, wherein said copy window size is measured or corrected using pre-recorded control information of said recording medium (10).

30 16. An apparatus for controlling a copy window during read-out of a magneto-optical recording medium (10) comprising a storage layer and a read-out layer, wherein an expanded domain leading to a reading pulse is generated in said read-out layer by copying a

mark region from said storage layer to said read-out layer upon heating by a radiation power and with the help of an external magnetic field, said apparatus comprising:

means (34) for deriving a switching time of said external magnetic field from said reading pulse;

5 means (34) for determining a shift in the timing of said reading pulse; and

means (34, 14, 30) for controlling the size of said copy window based on said determined timing shift.

17. An apparatus according to claim 16, wherein said determination means (34)

10 comprises a timer means for counting said time shift.

18. An apparatus according to claim 16 or 17, wherein said apparatus is a disk player for MAMMOS disks.